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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/015,167	12/11/2001	Jonathan A. Usuka	9080-016-999	3878
20583	7550	04/29/2009		
JONES DAY 222 EAST 41ST ST NEW YORK, NY 10017			EXAMINER DEJONG, ERIC S	
			ART UNIT 1631	PAPER NUMBER
			MAIL DATE 04/29/2009	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/015,167

Applicant(s)

USUKA ET AL.

Examiner

ERIC S. DEJONG

Art Unit

1631

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 February 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 14, 15, 17, 20-22, 39, 40, 42, 45, 47 and 58 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 14, 15, 17, 20-22, 39, 40, 42, 45, 47 and 58 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED OFFICE ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 02/06/2009 has been entered.

Claims 1-13, 16, 18, 19, 23-38, 41, 43, 44, 46, 48-57, and 59-77 are canceled. Claims 14, 15, 17, 20-22, 39, 40, 42, 45, 47, and 58 are pending and are currently under examination.

Rejections and/or objections not reiterated from previous office actions are hereby withdrawn. The following rejections and/or objections are either reiterated or newly applied. They constitute the complete set presently being applied to the instant application.

Claim Rejections - 35 USC § 101

The previous rejection of claims 14, 15, 17, 20-22, 39, 40, 42, 45, 47, and 58 is withdrawn in view of the recent CAFC decision of *In re Bilski*.

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. This rejection is newly applied.

The recent en banc decision regarding *Bilski v. Warsaw* (2008) set forth that a process is patent-eligible if (1) it is tied to a particular machine or apparatus or (2) it transforms a particular article into a different state or thing. Further, the recent decision in *Comiskey* (2009) confirmed the opinion set forth in *Bilski* of the prohibition pre-empting an abstract idea or mental process in a claim. The revised *Comiskey* decision further reiterated the precedent set forth in *Richman*, 563 F.2d 1026, 1030 (CCPA 1977) wherein the court held the application unpatentable because "if a claim [as a whole] is directed essentially to a method of calculating, using a mathematical formula, even if the solution is for a specific purpose, the claimed method is nonstatutory."

In the instant case, the claims are drawn to a method and the related computer system and program product for associating a phenotype with one or more candidate chromosomal regions. The recited process comprises the abstract/computational steps of establishing genotypic data structure, determining correlation values, repetition of said establishing and determining steps, identifying of one or more genotypic data

structure by use of a computer, and communicating the genotypic data structure(s) to a user. The instant claims do not recite or inherently involve a transformation of a particular article into a different state or thing. Rather, the instant claims is directed to a computational method wherein phenotypic and genomic data is used in a series of calculations. Therefore, the examiner must determine if that claims recite a tie to a particular machine or apparatus. In the instant case, the claims do recite the use of "a computer" and a final processing step of communicating a result. However, the final step of outputting or storing a result is considered insignificant post solution activity. Further, the media and computer components recited in the system and computer media claims encompasses only that which is required for a general purpose computer. A tie to a general purpose computer is insufficient to satisfy the "particular machine or apparatus". Such general purpose computer systems would serve only to pre-empt the above described abstract/computational process recited in the instant claims and, therefore, are not considered statutory subject matter. See *Ex parte Atkin* (Jan 30 2009), *Ex parte Barnes* (Jan 26 2009), *Ex parte Cornea-Hasegan* (Jan 13 2009), *Ex parte Gutta* (Jan 15 2009), and *In re Furgeson* (March 6, 2009).

Response to Arguments

Applicant's arguments filed 02/06/2009 have been fully considered but they are not persuasive in light of the new grounds of rejection set forth above.

In regards to the rejection of claims under 35 USC § 101, applicants argue that the instant claims require the determining and identifying steps to be performed on a computer and therefore are intimately tied to another statutory class of invention.

In response, it is reiterated that a tie to a general purpose computer is insufficient to satisfy the "particular machine or apparatus". Such general purpose computer systems would serve only to pre-empt the above described abstract/computational process recited in the instant claims and, therefore, are not considered statutory subject matter. Further, the recitation of a general purpose computer comprising unspecified programming as the vehicle by which the recited computational process is performed fails to impose any meaningful limits on the scope of the instant claims. A general purpose computer is not a "particular machine" in the context of standard set forth in *In re Bilski*. See especially *Ex parte Cornea-Hasegan* (Jan 13 2009). Therefore, it is maintained that the instant claims are directed essentially to a method of calculating, using a mathematical formula, for a specific purpose, and as such the claimed invention is directed to nonstatutory subject matter.

Claim Rejections - 35 USC § 103

The rejection of claim 46 under 35 USC 103(a) as being unpatentable over Satagopan et al. is withdrawn in view of the cancellation of said claim.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ERIC S. DEJONG whose telephone number is (571)272-6099. The examiner can normally be reached on 8:30AM-5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marjorie Moran can be reached on (571) 272-0720. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/ERIC S. DEJONG/
Primary Examiner, Art Unit 1631